

WE CLAIM:

1. A material comprising:

a nonwoven web comprising a plurality of substantially continuous fibers having a z-direction orientation and forming a plurality of ridges on both surfaces of the nonwoven web.

2. The lofty material of claim 1 further comprising:

the nonwoven web being a lofted web with x, y and z dimensions, with x being the machine direction, y being the cross machine direction and z being the loft direction;

first and second major surfaces in x-y planes and spaced apart in the z direction;

the continuous fibers being folded to form loops extending in the z direction and the loops combining to form a material with a succession of waves spaced along the machine direction, each wave running in the cross machine direction.

3. The material according to Claim 2 further including each wave having at least one of its leading or trailing edges bonded to an adjacent leading or trailing edge to thereby hold its z-direction shape.

4. The material according to Claim 3 wherein the leading and trailing edges of one wave are bonded together.

5. The material according to Claim 3 wherein the leading and trailing edges of one wave are bonded together and bonded to the trailing and leading edges of the adjacent waves, respectively.

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Cancelled*

6. The material according to Claim 2 further including each wave being substantially elliptically shaped in cross section between the major surfaces.

7. The material according to Claim 2 further including: the waves are oriented off the orthogonal z- axis and are unidirectional.

8. The material according to Claim 2 further including: the waves are oriented off the orthogonal z- axis and are multi-directional.

9. The material according to Claim 2 further including: the first major surface being preponderantly closed.

10. The material according to Claim 2 further including: the second major surface being preponderantly closed.

11. The material according to Claim 2 further including: the waves being randomly spaced in the machine direction.

*John B2*

*Original*

12. The material according to Claim 2 further including: the waves being regularly spaced in the machine direction.

13. The material according to Claim 2 further including: the waves being random length in the cross machine direction.

14. The material according to Claim 2 further including: the waves being regular length in the cross machine direction.

15. The material according to Claim 14 wherein: the waves extend from edge to edge in the cross machine direction.

16. A material in accordance with Claim 1, wherein the substantially continuous fibers are selected from the group consisting of spunbond, meltblown and combinations thereof.

17. A material in accordance with Claim 1, wherein the substantially continuous fibers comprise an adhesive.

18. A material in accordance with Claim 1, wherein the substantially continuous fibers are thermally bonded.

19. A material in accordance with Claim 1, wherein the nonwoven web has a basis weight in a range of about 0.25 osy to about 50 osy.

20. A material in accordance with Claim 1, wherein the substantially continuous fibers are polymeric fibers.

21. A material in accordance with Claim 20, wherein the polymeric fibers are thermoplastic fibers.

22. A material in accordance with Claim 1, wherein the substantially continuous fibers are selected from the group consisting of homofilament fibers, bicomponent fibers, biconstituent fibers and combinations thereof.

23. A material in accordance with Claim 1, wherein a support structure is attached to at least one face of the nonwoven web.

24. A material in accordance with Claim 1, wherein the nonwoven web further comprises an absorbent.

25. A method for producing a material having z-direction folds comprising:

conveying continuous fibers on a first moving surface from a first moving surface to a second moving surface, the second moving surface traveling at a slower speed than the first moving surface, resulting in formation of a material having a plurality of z-direction folds on both surfaces of the material.

26. The method for producing a material having z-direction folds according to claim 25 further comprising:

positioning the first moving surface and the second moving surface to form a nip therebetween.

27. A method in accordance with Claim 25 wherein the continuous fibers are selected from the group consisting of spunbond, meltblown, spunbond-meltblown-spunbond laminates, coform, spunbond-film-spunbond laminates, bicomponent spunbond, bicomponent meltblown, biconstituent spunbond, biconstituent meltblown, and combinations thereof.

28. A method in accordance with Claim 25, wherein the first moving surface is traveling in a range of about 1.25 to about 7 times faster than the second moving surface.

29. A method in accordance with Claim 25, wherein the first moving surface is a forming surface on which the fibers are formed.

30. A method in accordance with Claim 25 wherein the fibers are lightly bonded.

31. A method in accordance with Claim 25, wherein the nonwoven material is bonded by at least one of an adhesive bonding process and a thermal bonding process.

32. A method in accordance with Claim 25, wherein the first moving surface and the second moving surface are perforate.

33. A method in accordance with Claim 32, wherein the material is transferred from the first moving surface to the second moving surface using a controlled vacuum whereby the material is pulled in a direction of the second moving surface.

34. A method in accordance with Claim 33, wherein the material is transferred from the first moving surface to the second moving surface using a positive air pressure whereby the material is pushed in a direction of the second moving surface.

35. A method in accordance with Claim 25, wherein at least one additional material is applied to a face of the base material, forming a composite or laminate.

36. A method in accordance with Claim 25 wherein the first moving surface and second moving surface face opposing directions.

37. A method in accordance with Claim 36 wherein the first moving surface and second moving surface have no directly opposing faces to form a channel.

38. A method in accordance with Claim 25, wherein the continuous fibers comprise a plurality of thermoplastic fibers

*39.* A personal care absorbent article comprising:  
a nonwoven web comprising a plurality of substantially continuous fibers having a z-direction orientation and forming a plurality of ridges on both surfaces of the nonwoven web.

40. A personal care absorbent article in accordance with Claim 39,  
wherein the nonwoven web further comprises an absorbent.

41. A filtration material comprising: a nonwoven web comprising a  
plurality of substantially continuous fibers having a z-direction orientation and  
forming a plurality of ridges on at least one surface of the nonwoven web.

42. A filtration material in accordance with Claim 41, wherein a  
support structure is attached to at least one face of the nonwoven web.